CLAIMS

What is claimed is:

1. A probe comprising:

a first tube comprising

a first end positioned at a measurement location, and a second end;

a second tube comprising a first end, and a second end;

a connector comprising a transducer for connecting said second end of said first tube to said second end of said second tube; and

a terminating element attached to said first end of said second tube wherein said second tube is of a length sufficient to substantially eliminate the incidence of resonance.

2. The probe of claim 1 wherein a ratio of the length of said second tube to the length of said first tube is between 180:1 and 13:1.

3. The probe of claim 1 wherein said first tube comprises a length between three and thirty six inches.

4. The probe of claim 3 wherein said first tube comprises a length between six and twelve inches.

5. The probe of claim 1 wherein an inner diameter of said first tube is equivalent to an inner diameter of said second tube.

6. The probe claim 5 wherein said connector comprises a pathway of a diameter equal to said inner diameter of said first tube.

7. The probe of claim 1 wherein said transducer is a high temperature transducer.

8. The probe of claim 1 wherein said terminating element is selected from the group consisting of a cap and a steady state data system.

9. The probe of claim 8 wherein said steady state data system consists of a system selected from the group consisting of an accurate transducer and a scanning valve transducer.

10. The probe of claim 1 wherein said first tube and said second tube comprise hypo-tubes.

11. The probe of claim 1 wherein said first tube is of a length sufficient to allow for a measurement of transient absolute and dynamic pressure.

12. A probe assembly, comprising:
a first tube;
a second tube; and
a first sensor between said first and second tubes.

13. The probe of claim 12 wherein said first tube has a length selected to allow said first sensor to measure transient dynamics within said first tube.

14. The probe of claim 13 wherein said length of said first tube is between three and thirty six inches.

15. The probe of claim 14 wherein said length of said first tube is between six and twelve inches.

16. The probe of claim 12 wherein said second tube has a length selected to limit reflections or resonance within said second tube.

17. The probe of claim 16 wherein said length of said second tube is at least forty feet.

18. The probe of claim 12 wherein said first sensor is cooled.

19. The probe of claim 12 wherein said first sensor is a pressure transducer.

20. The probe of claim 12 further comprising a second sensor secured to said second tube.

21. The probe of claim 20 wherein said first sensor takes dynamic measurements and said second sensor takes static state measurements.